REMARKS

This amendment is submitted in conjunction with a Request for Continued Examination under 37 C.F.R. § 1.114. Claims 11-18 and 21 are pending in the application. By this paper, claims 11 and 21 have been amended. Reconsideration and allowance of the application in light of the arguments and amendments herein are respectfully requested.

Intended Use Phrases

Claims 11 and 21 recite the claimed invention positively

The final office action asserted that certain phrases of the independent claims pertained only to the intended use of the invention, such as "for a tire pressure sensor," "for adhering," etc. These phrases were not given patentable weight during evaluation of the claims since such phrases are not considered to be positive limitations of the claims. For sake of clarification and in order to advance prosecution of the present application, claims 11 and 21 have been amended herein to positively recite phrases that the final office action alleged to be "intended use phrases".

It is respectfully submitted that independent claims 11 and 21, as amended, positively recite the invention defined by these claims so as so that all the language of the claims merits patentable weight. For example, claim 11 has been amended to recite "An adhesive system mounting a tire pressure sensor on a wheel," having an "adhesion surface contacting a surface of the wheel." Further claim 11 recites a "first adhesive having a short cure time and retaining the tire pressure sensor on the surface of the wheel during an assembly operation...." Similarly, claim 11 recites a second adhesive "retaining the tire pressure sensor on the surface of the wheel during operation of the vehicle..." Claim 21 includes similar positive recitations.

All these limitations are structural limitations of the claim. They do not merely describe a use of the claimed adhesive system. Rather, they describe the structure of the claimed adhesive system. Accordingly, reconsideration of all recited limitations of the pending claims is respectfully requested.

Prior Art Rejections

Chung and Sorenson are non-analogous prior art

As a preliminary matter, Applicant respectfully points out that the cited references, Chung and Sorenson, are not analogous to the art of the present invention, as defined by independent claims 11 and 21. A reference must be either in the field of endeavor of the claimed invention or reasonably pertinent to the particular problem to which the invention is directed. A reference is reasonably pertinent if it is one which, because of the matter with which it deals, it would have logically been commended to an inventor's attention in considering his problem. MPEP 2141.01(a). This is not the case with Chung or Sorenson.

The present invention relates to an adhesive system for a tire pressure sensor (TPS). The TPS is a component of a tire pressure monitoring system of a vehicle. The claimed adhesive system may be used for mounting a tire monitor to a wheel or tire of the vehicle.

Tire pressure monitors have a relatively great mass. Typically, a TPS has a housing containing electronic components and a battery. Mounted on a wheel, within a tire, the TPS rotates at up to 500 rpm and can be subjected to very high and very low temperatures. Given the extreme forces of rotation as the wheel turns and bounces over bumps or holes, and the extreme operating conditions, a TPS needs to be securely retained to the wheel, over the lifetime of the wheel, not just the lifetime of the tire. A wheel and TPS represent an extreme adhesion environment.

One possibility for mounting a TPS is to use an adhesive. Suitably strong adhesives are available, but they require a long cure time, such as 10-12 hours. Use of such an adhesive would require that (1) the adhesive be applied to the tire monitor and wheel assembly, (2) the tire monitor would be adhered to the wheel assembly, and (3) the adhesive would be allowed to cure, for 10-12 hours. During the cure time, all further assembly, such as mounting of the tire on the wheel, must stop so that a reliable adhesion is achieved. Since auto manufacturers need to reduce assembly time, use of just a strong adhesive such as this has not been possible.

Claim 11 defines an inventive adhesive system which comprises two adhesives joining a tire pressure sensor and a wheel. The first adhesive is "quick stick" or has a short cure time. The second adhesive has a long cure time. In combination, the two adhesives join the tire pressure sensor and the wheel during an assembly operation, and indefinitely thereafter, even in extreme adhesion environment of a TPS and wheel.

Clearly, Chung and Sorenson are not reasonably pertinent references to the matter of TPS-wheel adhesion. Chung discloses a kinescope and yoke affixed with a polyurethane adhesive. No moving parts are involved; the adhesive of Chung merely joins two static components that are not in the automotive/vehicular arts, much less the tire/wheel or TPMS arts. No extremes of temperature are involved in Chung. Chung lacks any suggestion that the kinescope and yoke operate at either hot or cold temperature, or other than room temperature. An inventor considering the problems of (1) needing an adhesive adequate for the extreme adhesion environment of a rotating TPS and wheel and, (2) needing an adhesive that does not take 10-12 hours to cure, would not look to an art in which parts are not subjected to mechanical extremes such as rotation at 500 rpm and extremes of temperatures. The matter with which Chung deals, joining a kinescope and a yoke, would not have logically commended itself to the inventor's attention.

Similarly, Sorenson relates to adhesive labels. Such a label may include an area with a permanent adhesive and an area with lesser adhesion. The lesser adhesion permits the label to be peeled back and later resealed. Again, this reference is not reasonably pertinent to the present invention. Sorenson's invention does not relate to devices having any appreciable mass or moving parts which are subject to extreme mechanical forces, such as disposition within the carcass of a tire on a wheel turning at 500 rpm. Further, Sorenson is not related to a device which must operate at temperature extremes, such as those experienced in a TPS affixed to a wheel. In fact, Sorenson relates to a peelable, re-attachable adhesive for a package label. The ability to peel and reattach a relatively massless label is directly at odds with the requirement that a TPS adhere to a wheel during the lifetime of the wheel, which may be many years and many miles. Again, the matter with which Sorenson deals, joining a label to a package, would not have logically commended itself to the attention of an inventor of an adhesive system for a tire pressure sensor.

Accordingly, it is respectfully submitted that Chung and Sorenson represent adhesive system art which is not analogous to the adhesive system for a tire pressure sensor in accordance with the present invention. Thus, Chung and Sorenson are not prior art in the present case.

Regardless, as discussed below these absences of the environment in which the elements of the present claims are cast means that recited limitation of the claims are missing from Chung and Sorenson, taken separately or together.

The present invention of claims 11, 14-17 and 21 is not anticipated by Chung

According to the Office Action dated March 30, 2008, Claims 11-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent number 4,620,127 to Chung ("Chung"). This rejection was repeated and also applied to claim 21 in the final office action dated December 28, 2006.

Reconsideration of this rejection is respectfully requested. Chung actually relates to a kinescope-yoke assembly for a video monitor. Chung discloses use of a fast curing adhesive in combination with a slow curing adhesive (column 4, line 64 – column 5, line 7). Chung can not anticipate the present invention defined by claims 11 and 21 because Chung does not disclose all the features of these claims. With respect to claim 11, Chung fails to disclose

> **An adhesive system mounting a tire pressure sensor on a wheel of a vehicle,**

as recited by amended claim 11. Moreover, Chung fails to disclose an adhesive system with

> **an adhesion surface ..., said adhesion surface contacting a surface of the wheel of the vehicle**

and having a first region and a second region. Still further, Chung fails to disclose

> **a first adhesive ... retaining the tire pressure sensor on the surface of the wheel during an assembly operation...**

or

> **a second adhesive ... retaining the tire pressure sensor on the surface of the wheel during operation of the vehicle...**

as recited by claim 11. With respect to claim 21, Chung fails to disclose

> **An adhesive system mounting a tire pressure sensor to a wheel of a vehicle...**

Further, Chung fails to disclose that the adhesive system includes

> **a first adhesive disposed on an adhesion surface of the tire pressure sensor, the adhesion surface chosen ... as the point where adhesion between the tire pressure sensor and the wheel is to occur,**

as recited by claim 21. Still further, Chung fails do disclose

> **the first adhesive having a relatively short cure time and adhering the adhesion surface of the tire pressure sensor to the surface of the wheel during an assembly operation involving the wheel...**
>
> **a second adhesive disposed on a second region of the adhesion surface of the tire pressure monitor,**
>
> **the second adhesive having a relatively long cure time, the second adhesive adhering the tire pressure sensor to the surface of the wheel indefinitely at typical operational speeds of the vehicle...**

Each of the listed claim features is missing from Chung. Claims 11 and 21 relate to an adhesive system mounting a tire pressure sensor to a wheel of a vehicle. In contrast, Chung discloses a kinescope and yoke affixed with a polyurethane adhesive (Summary, column 2, lines 8-10, and the drawing figure). Moreover, Chung fails to teach (or suggest) that the disclosed kinescope-yoke adhesive system could be extended to a tire pressure sensor mounted to a wheel. Thus, Chung cannot be fairly characterized as teaching (or suggesting) an adhesion surface that contacts a surface of a wheel of a vehicle as claimed in claims 11 and 21. Similarly, since Chung is silent concerning a wheel or tire, Chug cannot be said to teach (or suggest) "retaining the tire pressure sensor on the surface of the wheel during an assembly operation" as claimed in claim 11 or similar limitations of claim 21. Hence it is certainly unfair to characterize Chung as teaching (or suggesting) "retaining the tire pressure sensor on the surface of the wheel during operation of the vehicle" as recited by claim 11 and also claimed in claim 21, particularly since Chung does not by any stretch teach or suggest any sort of operating conditions akin to that experienced by a wheel/TPMS sensor interface.

For at least the forgoing reasons, Applicant respectfully asserts that independent claims 11-21 include limitations nowhere disclosed in Chung. Thus, it is respectfully submitted that Chung does not anticipate the invention defined by these claims. Claims 14-17 each ultimately depend from independent claim 11. Thus, each of claims 14-17 inherit all elements of claim 11. Therefore, for at least the reasons advanced above in addressing the anticipation rejection of claim 11 in light of Chung, each of claims 14-17 set forth features and elements not recited by Chung. Hence, Applicant respectfully asserts that claims 14-17 are also patentable over the 35 U.S.C. § 102 rejection of record under Chung. Furthermore, there are great differences between the claims and Chung, and a person of ordinary skill in the art considering the prior art would not find these differences obvious.

The present invention of claims 11-13 and 16-18 is not anticipated by Sorenson

According to the office action dated March 30, 2005, claims 11-13 and 16-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by US patent number 4,889,234 to Sorenson ("Sorenson"). According to the office action, Sorenson relates to an adhesive system including a first adhesive region with a releasable adhesive that will inherently exhibit fast curing time and a second adhesive region with a permanent adhesive that will inherently exhibit long curing time.

Sorenson actually relates to relatively low mass adhesive labels. Such a label may include an area with a permanent adhesive and an area with lesser adhesion. The lesser adhesion permits the label to be peeled back and later resealed. According to the office action, this disclosure of Sorenson anticipates the present invention defined by independent claim 11.

Reconsideration of this rejection is respectfully requested. Sorenson can not anticipate the present invention defined by claim 11 because Sorenson does not disclose all the features of claim 11. Sorenson fails to disclose the following limitations:

> **An adhesive system mounting a tire pressure sensor on a wheel of a vehicle, ...**
>
> **an adhesion surface ..., said adhesion surface contacting a surface of the wheel of the vehicle**

Still further, Sorenson fails to disclose

> **a first adhesive ... retaining the tire pressure sensor on the surface of the wheel during an assembly operation...**

or

> **a second adhesive ... retaining the tire pressure sensor on the surface of the wheel during operation of the vehicle...**

as recited by claim 11.

Claim 11 relates to an adhesive system mounting a tire pressure sensor to a wheel of a vehicle. Sorenson's disclosure of a paper label does not relate to the invention of claim 11 and fails to disclose all the limitations of this claim. Similar to Chung, Sorenson cannot be fairly characterized as teaching (or suggesting) an adhesion surface that contacts a surface of a wheel of a vehicle as claimed in claim 11. Further, whereas Sorenson is silent concerning a wheel or tire, Sorenson cannot be said to teach (or suggest) retention of a tire pressure sensor on the surface of a wheel during an assembly operation, as claimed in claim 11. Again, Applicant respectfully asserts that it is inherently unfair to characterize Sorenson as teaching (or suggesting) "retaining the tire pressure sensor on the surface of the wheel during operation of the vehicle" as recited by claim 11, as Sorenson merely discloses a paper label adhesive system which could not by any stretch of the imagination be extended or modified for use to mount a tire pressure sensor to a wheel, within the carcass of a tire.

Since independent claim 11 includes limitations nowhere disclosed (or suggested) in Sorenson, it is respectfully submitted that Sorenson does not anticipate the invention defined by these claims. Claims 12, 13 and 16-18 each ultimately depend from independent claim 11. Thereby, each of claims 12, 13 and 16-18 inherit all elements of claim 11. Therefore, for at least the reasons advanced above in addressing the anticipation rejection of claim 11 vis-à-vis Sorenson, each of claims 12, 13 and 16-18 set forth features and elements not recited by Sorenson. Hence, Applicant respectfully asserts that claims 12, 13 and 16-18 are also patentable over the 35 U.S.C. § 102 rejection of record citing Sorenson. Furthermore, as pointed out above there are great differences between the claims and Sorenson, and a person of ordinary skill in the art considering the prior art would not find these differences obvious.

Accordingly, withdrawal of the rejection of claims 11-18 and allowance of these claims and claim 21 are respectfully requested.

With this response, the application is believed to be in condition for allowance. Should the examiner deem a telephone conference to be of assistance in advancing the application to allowance, the examiner is invited to call the undersigned attorney at the telephone number below.

Respectfully submitted,

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